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P. 1-4

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1/1 - (C) FILE CA

STN CA Caesar accession number : 1997

AN - 128:48067 CA

ED - Entered STN: 27 Jan 1998

TI - Preparation of fluorene-carboxylic acid esters as
electron-transporting materials for electrophotographic
photoreceptors

IN - Nanba, Michihiko; Shoshi, Masayuki; Tadokoro, Kaoru

PA - Ricoh Co., Ltd., Japan

SO - Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DT - Patent

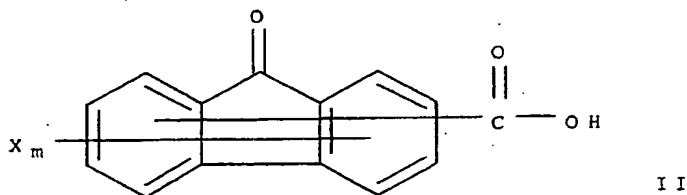
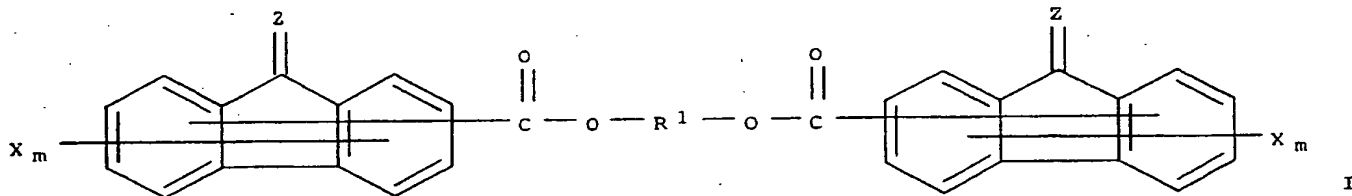
LA - Japanese

IC - ICM C07C069-76

ICS C07C067-08; C07C201-12; C07C205-37; C07C255-41; C09B057-00;
G03G005-06CC - 25-26 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PN	JP9316036	A2	19971209	JP 1996-137298	19960530 <--
PRAI	JP 1996-137298		19960530		
OS	CASREACT 128:48067; MARPAT 128:48067				
GI					



AB Title compds. I [$Z = O, C(CN)_2, C(CN)C(CO_2R_2)$; $R_1 =$ (substituted) alkylene, (substituted) arylene, (substituted) cycloalkylene; $R_2 =$ (substituted) alkyl, (substituted) aryl; $X =$ cyano, NO_2 , halo (substituted) alkyl; $m = 0-4$] are prep'd. by reaction of fluorenes II ($X, m =$ same as above) with $R_1(OH)_2$ ($R_1 =$ same as above) in the presence of acid and base catalysts and optional reaction of I ($Z = O$; $X, R_1, m =$ same as above) with H_2CYCN ($Y = CN, CO_2R_2$; $R_2 =$ same as above) in the presence of acid and base catalysts. A PhMe soln. of 6.72 g II (2- $CO_2H, m = 0$) (III) was treated with 2.19 g $OH(CH_2)_8OH$ in the presence of $p-MeC_6H_4SO_3H \cdot H_2O$ at 100.degree. for 10

h to give 1.68 g I (Z = O, R1 = C8H16, m = 0, OH(CH2)8OH was bonded to the 2-position of III) (IV). The electrophotog. photoreceptor contg. IV showed a surface potential of 1557 V and E1/2 9.0 lx.sec.

diol esterification fluorene-carboxylic acid; fluorene-carboxylic acid ester prepn; cyano compd condensation fluorene-carboxylic acid electron transporting material fluorene-carboxylate prepn

Electrophotographic photoconductors (photoreceptors)
(prepn. of fluorene-carboxylic acid esters as electron-transporting materials for electrophotog. photoreceptors)

Esterification catalysts
(prepn. of fluorene-carboxylic acid esters by esterification with diols and optional condensation with cyano compds.)

104-15-4, uses 109-02-4, N-Methylmorpholine 110-86-1, Pyridine, uses 865-47-4, tert-Butoxypotassium 7550-45-0, Titanium tetrachloride, uses

RL: CAT (Catalyst use); USES (Uses)

(catalyst; prepn. of fluorene-carboxylic acid esters by esterification with diols and optional condensation with cyano compds.)

IT	<u>198560-48-4P</u>	198560-51-9P	198560-54-2P	198561-05-6P
	199943-32-3P	199943-33-4P	199943-34-5P	199943-35-6P
	199943-36-7P	199943-37-8P	199943-38-9P	<u>199943-39-0P</u>
	199943-40-3P	199943-41-4P	199943-42-5P	199943-43-6P
	199943-44-7P	199943-45-8P	<u>199943-46-9P</u>	199943-47-0P
	199943-48-1P	199943-49-2P	199943-50-5P	199943-51-6P
	199943-52-7P	199943-53-8P	199943-54-9P	199943-55-0P
	199943-56-1P	199943-57-2P	199943-58-3P	199943-59-4P
	199943-60-7P	199943-61-8P		

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of fluorene-carboxylic acid esters by esterification with diols and optional condensation with cyano compds.)

IT 78-78-4 80-05-7, reactions 105-08-8, 1,4-Cyclohexanedimethanol
109-77-3, Malononitrile 110-63-4, 1,4-Butanediol, reactions
562-49-2, 3,3-Dimethylpentane 589-29-7, 1,4-Benzenedimethanol
626-18-6, 1,3-Benzenedimethanol 629-41-4, 1,8-Octanediol
784-50-9, 9-Fluorenone-2-carboxylic acid 843-55-0 1478-61-1,
2,2-Bis(4-hydroxyphenyl)hexafluoropropane 1573-92-8,
9-Fluorenone-1-carboxylic acid 5459-58-5, Butyl cyanoacetate
6223-83-2, 9-Fluorenone-4-carboxylic acid 6807-17-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of fluorene-carboxylic acid esters by esterification with diols and optional condensation with cyano compds.)

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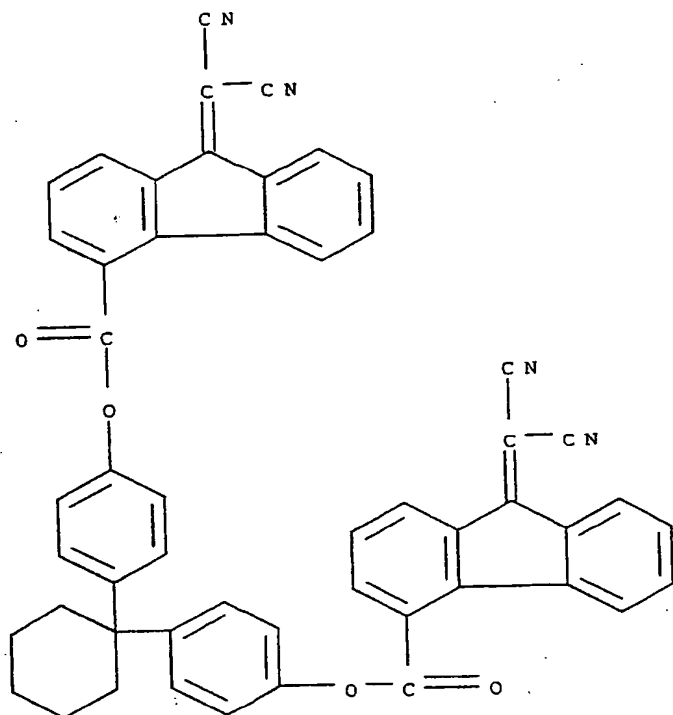
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L10 Substance 3/4 File ZREGISTRY - (C) ACS 2004

RN 198560-48-4

IN 9H-Fluorene-4-carboxylic acid, 9-(dicyanomethylene)-,
cyclohexylidenedi-4,1-phenylene ester (9CI)

MF C52 H32 N4 O4

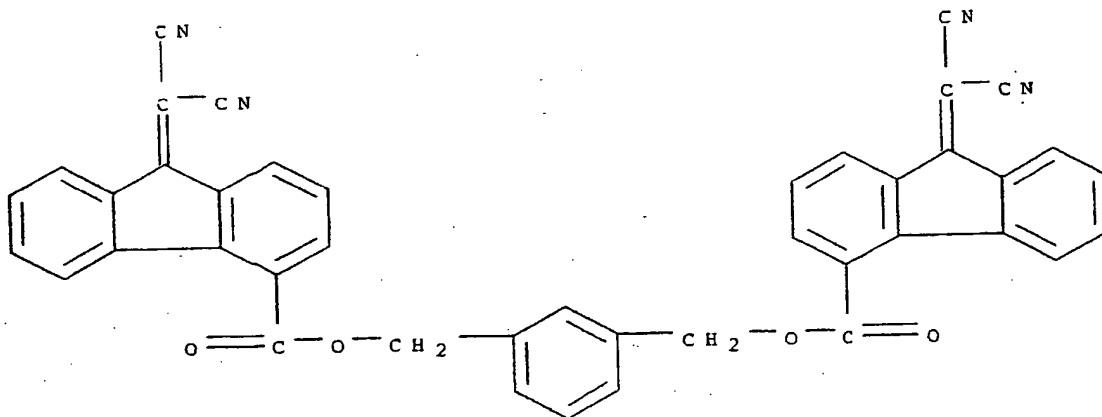


8 Substance 1/4 File ZREGISTRY - (C) ACS 2004

N 199943-46-9

N 9H-Fluorene-4-carboxylic acid, 9-(dicyanomethylene)-,
1,3-phenylenebis(methylene) ester (9CI)

F C42 H22 N4 O4

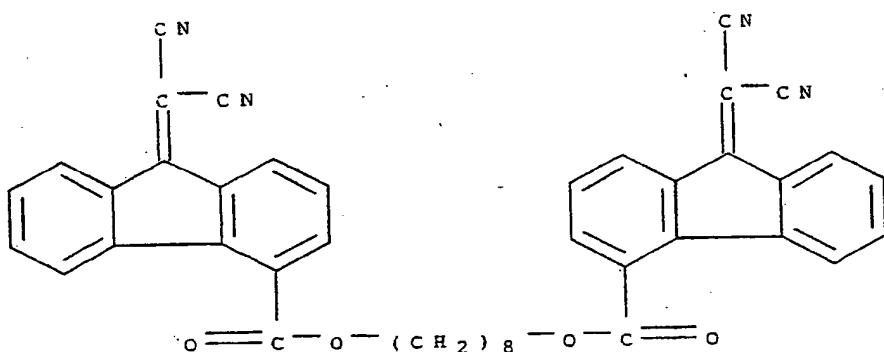


9 Substance 2/4 File ZREGISTRY - (C) ACS 2004

UN 199943-39-0

EN 9H-Fluorene-4-carboxylic acid, 9-(dicyanomethylene)-, 1,8-octanediyl
ester (9CI)

EF C42 H30 N4 O4



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